

**REMARKS**

Claims 1-17 were originally filed. In the Preliminary Amendment, Claims 18-20 were added. Claims 1-20 were then the subject of a Restriction Requirement mailed January 28, 2008. In Response to that Restriction Requirement, Applicants filed an Amendment on April 28, 2008, where Claims 21-38 were added and amendments to the specification and abstract were made. The current Restriction Requirement acknowledged the Amendment of April 28, 2008, but did not specifically state whether the amendments made therein were in fact entered. Applicants proceed herein on the assumption that the Amendments in the April 28, 2008, Response were entered.

In the present Amendment, Claims 1-20 have been canceled, Claims 26 and 37 have been amended, and Claim 39 has been added. Claims 21-39 are now pending.

**Amendments to the Claims**

Claims 1-20 have been cancelled without prejudice or disclaimer. Applicant reserves the right to pursue the subject matter of the cancelled claims in one or more timely filed continuation, continuation-in-part, or divisional applications.

Claims 26 and 37 have been amended to delete compound 159 to correct a clerical error.

New Claim 39 has been added to claim a specific embodiment of the invention. Support for this claim can be found in the specification at page 23, second structure in the right column, of the published application.

No new matter has been added by these amendments; therefore, examination is requested on the application as amended herewith.

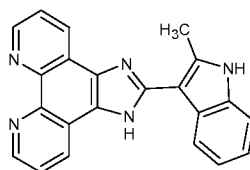
**Response to Restriction Requirement**

The Examiner determined that the previous restriction of the application was improper and thus rescinded the Restriction Requirement dated January 28, 2008. The Examiner has now restricted the application and required an election of one of the following 29 Groups (Groups I through XXIX) under 35 U.S.C. § 121 and 372:

Group No.	Compounds of Formula I where	
	R1	R2 and/or R3
I (Claims 1-27)	phenyl	phenyl
II (Claims 1-27)	phenyl	pyridyl
III (Claims 1-27)	phenyl	thiophene
IV (Claims 1-27)	phenyl	biphenyl
V (Claims 1-27)	phenyl	piperidine
VI (Claims 1-27)	phenyl	naphthalene
VII (Claims 1-27)	phenyl	Polycyclic ring system with phenanthroline functional group
VIII (Claims 1-27)	phenyl	Polycyclic ring system with phenanthrene functional group
IX (Claims 1-27)	phenyl	Polycyclic ring system with azulene functional group
X (Claims 1-27)	indole	phenyl
XI (Claims 1-27)	indole	pyridyl
XII (Claims 1-27)	indole	thiophene
XIII (Claims 1-27)	indole	biphenyl
XIV (Claims 1-27)	indole	piperidine
XV (Claims 1-27)	indole	naphthalene
XVI (Claims 1-27)	indole	Polycyclic ring system with phenanthroline functional group
XVII (Claims 1-27)	indole	Polycyclic ring system with phenanthrene functional group
XVIII (Claims 1-27)	indole	Polycyclic ring system with azulene functional group
XIX (Claims 1-27)	pyrrole	phenyl
XX (Claims 1-27)	pyrrole	pyridyl
XXI (Claims 1-27)	pyrrole	thiophene

XXII (Claims 1-27)	pyrrole	biphenyl
XXIII (Claims 1-27)	pyrrole	piperidine
XXIV (Claims 1-27)	pyrrole	naphthalene
XXV (Claims 1-27)	pyrrole	Polycyclic ring system with phenanthroline functional group
XXVI (Claims 1-27)	pyrrole	Polycyclic ring system with phenanthrene functional group
XXVII (Claims 1-27)	pyrrole	Polycyclic ring system with azulene functional group
XXVIII (Claims 1-27) miscellaneous compounds of Formula 1 not encompassed by Groups I through XXVII		
XXIX (Claims 28-38) method of treating cancer by administering Groups XVI-XVII		

As required in response to the Restriction Requirement, Applicants elect, with traverse, Group XVI, which has been defined by the Examiner as being drawn to a compound of Formula I; wherein R<sub>2</sub> and R<sub>3</sub> = a polycyclic ring system that contains the phenanthroline functional group; and R<sub>1</sub> = indole. Also, as required, Applicants further elect with traverse the following species:



**90**

Claims 21, 22, and 24-27 read on the elected Group and species.

The Examiner alleged that the inventions listed as Groups I-XXIX do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features. In particular, the Examiner cited Mjilla [*sic*] *et al.* (EP 0 812 829), and stated that this reference discloses formula I with same substituents as disclosed in Claim 1, currently on file, and alleged

that the instant claims do not have a special technical feature and thus the claims lack unity.

Without conceding to the correctness of the Examiner's position, but in order to expedite prosecution of the instant application, Applicants have cancelled Claims 1-20, without prejudice or disclaimer. Applicants note that Claims 21-38, together with newly added claim 39, appear to belong to Groups XVI, XVII and XXIX as identified by the Examiner:

- XVI) Drawn to a compound of formula I, wherein R2 and R3 = a polycyclic ring system that contains the phenanthroline functional group; and R1 = indole.
- XVII) Drawn to a compound of formula I, wherein R2 and R3 = a polycyclic ring system that contains the phenanthrene functional group; and R1 = indole.
- XXIX) Drawn to a method of treating cancer in a mammal comprising a administering a compound of Groups XVI and XVII.

With respect to the Examiner's restriction of the claims into these Groups, Applicants respectfully traverse for the following reasons. Firstly, Applicants assert that Claims 21 to 39 relate to compounds having the same core structure, which is indolyl imidazole moiety with a specific fused ring system attached to the imidazole group (*i.e.* formula VI). As described in the instant specification, the compounds of formula VI (including the phenanthroline and phenanthrene derivatives of alleged Groups XVI and XVII respectively) not only share this common structural feature, but also share the same biochemical properties in that they are capable of inhibiting cancer cell growth. As such, Applicants assert that the instantly claimed subject matter considered as a whole, shares the same technical feature, as required by PCT Rule 13.2, and the compounds, and methods of use of the compounds are thus linked by a single general inventive concept that unifies Claims 21 to 39.

Moreover, Applicants assert that this special technical feature was not known in the art at the time the instant application was filed. The genus of compounds described in Mjalli *et al.* does not encompass the compounds as defined in instant Claims 21 to 39. In

particular, this reference fails to disclose compounds in which R2 and R3 in Formula (I) of the present application are fused with the imidazole ring to form the “fused ring system” as specifically defined in structural formula VI of Claims 21 to 39. Neither does Mjalli provide any teaching or suggestion relating to such a fused ring system. As such, Applicants assert that the invention as claimed in Claims 21 to 39 is novel and inventive in view of the disclosure of Mjalli *et al.* and that, at a minimum, the claims of Group XVI and XVII should be examined together in one application.

Secondly, Applicants assert that the claims of Group XXIX should be examined together with the claims of Groups XVI and XVII, as these claims meet the requirement under PCT Rule 13.1 and 13.2, and 37 CFR 1.475 for belonging to permissible combinations of different categories. In this regard, the Examiner is also directed to Section (e)(i) of Annex B of the PCT Administrative Instructions, which permits, for the purposes of determining unity of invention under Rule 13.2 “claims of different categories in the same international application: (i) in addition to an independent claim for a given product, an independent claim for a process specially adapted for the manufacture of the said product, and an independent claim for a use of said product.”

Thirdly, Applicants note that the guidelines set forth in MPEP § 803 clearly indicate that there are two criteria for a proper requirement for restriction between patentably distinct inventions: (A) the inventions must be independent (see MPEP § 802.01, § 806.04, § 808.01) or distinct as claimed (see MPEP § 806.05 - § 806.05(i)); and (B) there must be a serious burden on the Examiner if restriction is required (see MPEP § 803.02, § 806.04(a) - § 806.04(i), § 808.01(a), and § 808.02). If the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.

Applicants assert that the claims of Groups XVI, XVII and XXIX are connected by a single, searchable unifying relationship as discussed above, *i.e.*, all claims relate to compounds of Formula VI, and, in view of this single, searchable unifying relationship, Applicants assert that the Examiner would not be seriously burdened by searching and examining the claims of Groups XVI, XVII and XXIX in a single application.

In summary, Applicants assert that not only has the requirement of unity of invention as defined under PCT Rules 13.1 and 13.2 been met in that the claims of Groups XVI, XVII and XXIX share the same special technical feature and belongs to permissible combination of different categories, but also that the claims of Group XVI, XVII and XXIX are connected by a single, searchable unifying relationship (*i.e.* having a core structure of formula VI) and that the Examiner would not, therefore, be seriously burdened by searching and examining the claims of these groups in a single application. Accordingly, Applicants respectfully request withdrawal of the restriction of claims 21 to 39, submitted herewith.

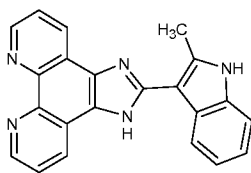
In the event the Examiner does not find the above arguments persuasive, and solely in order to expedite prosecution of the instant application, Applicants elect with traverse Group XVI.

***Species Election***

The Examiner has further requisitioned election of a species of the Group that Applicants would elect to be examined on the merits. The Examiner stated that Claims 1 to 27 encompass different compounds that are patentably distinct species, alleging that the compounds depicted in the claims possess different and distinct functionalities and can vary significantly structurally due to broad number of additional substituents that can be attached to one of the cores listed *supra*.

Applicants respectfully traverse the Examiner's restriction, in particular, for the compounds defined in Claims 21 to 27, currently on file. As outlined above, Applicants maintain that the compounds recited in the pending Claims 21 to 27, share a common core indolyl imidazole moiety with a specific fused ring system attached to the imidazole group (*i.e.* formula VI). As such, Applicants assert that Claims 21 to 27 are all linked by a single, searchable unifying relationship and that there would thus be no serious burden on the Examiner to search and examine Claims 21 to 39, submitted herewith, in a single application.

In the event that the Examiner finds the above arguments are not persuasive, Applicants elect with traverse the following species:



90

### ***Additional Species Election***

The Examiner also required an election of a specific disease/disorder/condition and an election of one or more specific anticancer agents, in the event Applicants elect Group XXIX to be examined on the merits.

For the sake of completeness, and should the Examiner at least find that Groups XVI, XVII, and XXIX should be examined together, then Applicants make the following additional species elections with traverse: “solid tumor” as a specific disease/disorder/condition and “paclitaxel” as the specific anti-cancer agent.

These specific elections are made with traverse because, as noted above, the Examiner must satisfy the following two criteria for a restriction to be proper: (1) the existence of independent and distinct inventions (35 U.S.C. § 121); **and** (2) that the search and examination of the entire application cannot be made **without serious burden** on the Examiner. M.P.E.P. § 803. Applicants respectfully submit that the Examiner has not shown that the second requirement has been met. Specifically, there has been no showing that it would be a serious burden to search and examine the two groups together.

### ***Other Matters***

The Examiner has indicated that in order to retain the right to rejoinder for the unelected process claims, the process claims must be amended during prosecution to require all the limitations of the product claims. In this regard, we note that Claim 28, directed to a method of treating cancer, refers directly to the compounds of currently pending product Claim 21. Applicants have further amended dependent method claim 37 to reflect the amendments made to dependent product Claim 26. As such, pharmaceutical composition Claim 27 and method Claims 28 to 39 are in order for rejoinder with the currently pending product Claims 21 to 26.

### ***Other Matters***

Additionally, in the previous Restriction Requirement at page 2 the Examiner stated that Forms 892 and 1449 had been previously communicated to Applicants.

However, Forms 892 and 1449 have not been a part of any previous communications from the Office. Accordingly, Applicants again respectfully request that the Examiner provide Forms 1449 and 892 in the next Office Action.

**CONCLUSION**

Applicants have elected with traverse Group XVI, and the species of “Compound 90.” Claims 21, 22, 24-27 are believed to read on the elected Group and species. Also, Applicants have elected, to the extent needed, the anti-cancer agent paclitaxel and solid tumors as the type of cancer.

Enclosed herewith is Payment in the amount of \$60.00 for the fee under 37.C.F.R. §1.17(a)(1) for the One-Month Extension of Time. No additional fees are believed due; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

BALLARD SPAHR ANDREWS &  
INGEROLL, LLP

/Christopher L. Curfman/

\_\_\_\_\_  
Christopher L. Curfman, JD, PhD  
Registration No. 52,787

BALLARD SPAHR ANDREWS & INGEROLL, LLP  
Customer Number 23859  
(678) 420-9300 (Phone)  
(678) 420-9301 (Facsimile)

**CERTIFICATE OF EFS-WEB TRANSMISSION UNDER 37 C.F.R. § 1.8**

I hereby certify that this correspondence – including any items indicated as attached, enclosed, or included – is being transmitted by EFS-WEB on the date indicated below.

/Christopher L. Curfman/

August 15, 2008

\_\_\_\_\_  
Christopher L. Curfman

\_\_\_\_\_  
Date: